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Convention on Prohibitions or Restrictions on the Use of Certain Conventional
Weapons Which May Be Deemed to Be Excessively Injurious or to Have
Indiscriminate Effects (CCW)

Tenth Session of the Group of Governmental Experts
Geneva, 7-11 March 2005

28 February 2005

Excellency,

I have the pleasure of forwarding to you an advanced version of the paper entitled "**Proposals** and ideas on MOTAPM in the Group of Governmental Experts (GGE) with the purpose to provide a basis for further work" by the Coordinator on MOTAPM, Ambassador **Markku Reimaa** of Finland, which will be issued as document **CCW/GGE/X/WG.2/1** of the Tenth session of the CCW Group of Governmental Experts (Geneva, 7 to 11 March 2005).

Please accept, Excellency, the assurances of my highest consideration.

Peter Kolarov
Secretary of the Group of Governmental Experts

The Permanent Representatives of the States Parties to the CCW
and CCW Signatory States and Observer States at Geneva

GVA 0390

Future paper CCW/GGE/X/WG.2/1

**Proposals and ideas on MOTAPM in the Group of Governmental Experts
(GGE) with the purpose to provide a basis for further work**

by the Coordinator

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INTRODUCTION

1. The present paper is submitted under the personal responsibility of the Coordinator on Mines Other Than Anti-Personnel Mines as a follow-up of the papers entitled "Proposals and ideas on MOTAPM in the Group of Governmental Experts (GGE) with the purpose to provide a basis for further work" (documents CCW/GGE/VIII/WG.2/1, dated 11 June 2004, and CCW/GGE/IX/WG.2/1, dated 15 October 2004) presented by the Coordinator. It attempts to reflect further the progress made and comments expressed during the Eighth and the Ninth sessions of the Group of Governmental Experts, as well as the support expressed for the **proposals**, both formal and **informal**, and ideas on MOTAPM put forward since the establishment of the GGE.

2. The main purpose of the present paper is to facilitate the discussion on the issues contained herein by providing a framework for the States Parties to prepare their positions and contributions, as well as to pave the way for a successful outcome of the Group's work at the Tenth, and especially at the Eleventh session of the Group. All the issues are treated on their own merits. Addressing the humanitarian impact by balancing the military requirement of MOTAPM may require a comprehensive approach. For this reason, the issues raised herein are often interlinked and should be addressed accordingly.

3. The Coordinator welcomes all **comments**, either orally or in writing, and **looks** forward to a fruitful and result-oriented discussion.

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I. RECOMMENDATIONS ON DETECTABILITY OF MOTAPM

4. To prohibit the use of MOTAPM, which are not detectable by commonly available mine detection **equipment**, subject to certain exclusions. A detectable MOTAPM is a MOTAPM, which, upon emplacement, incorporates in its construction a material or device that enables it to be detected by commonly available technical mine detection equipment and provides a response signal equivalent to a signal from eight grammes or more of iron in a single coherent mass buried five cm beneath the ground.

5. Newly **emplaced**¹ MOTAPM may be excluded from the detectability requirement if they are located in a perimeter-marked area which is documented and monitored by military personnel [and; or] protected by fencing or other means, to ensure the effective exclusion of civilians from the area.

6. MOTAPM already emplaced in minefields may be excluded from the detectability requirement.

7. After the provisions contained in this paper become effective, fixture MOTAPM and existing stocks which have not been emplaced, should meet the detectability requirement prior to their use, except in the case referred to in paragraph 5 above.

8. If required, a State can avail itself of a transition period to meet the detectability **re-**quirement.²

¹ After the **provisions** contained **in** part I of this paper, become effective

² A period not exceeding nine years was agreed upon in the **CCW** Amended Protocol n

n. RECOMMENDATIONS ON RESTRICTIONS ON THE USE OF MOTAPM

9. All remotely delivered MOTAPM should incorporate a self-destructing mechanism, or a mechanism for self-neutralization, with a **self-deactivation** backup (hereinafter referred to as "**SD or SN/SDA**").

10. All MOTAPM located outside a perimeter-marked area which is documented and monitored by military personnel [and; or] protected by fencing or other means, to ensure the effective exclusion of civilians from the area should incorporate SD or SN/SDA regardless of whether they are **hand-emplaced** or remotely delivered.

11. Mines, which are required to self-destruct or self-neutralize, should do so within 45 days after emplacement. Self-deactivation of those mines which fail to self-destruct or self-neutralize should take place within 120 days after **emplacement**.³

12. Each State Party should take the measures necessary to ensure that no more than 10 percent (with a 90 percent confidence level) of activated mines will fail to self-destruct or self-neutralize after 45 **days**.⁴

13. Each State Party should take the measures necessary to ensure that, in combination with **self-destruct**, self-neutralization mechanisms, only one in a thousand activated mines will function as a mine after 120 days.

14. If required, a State may avail itself of a transition period not exceeding [9; 15] years.

15. Measures aimed at addressing the humanitarian aspects and military requirements of MOTAPM equipped with Anti-Handling Devices (**AHD**) shall be determined as stipulated in Annex B of the present paper. The use of MOTAPM including those equipped with AHD can cause humanitarian suffering and can be a serious impediment to humanitarian assistance, peace-keeping, peace-making, reconstruction, social and economic development. This appears to be concurrent with a general recognition that MOTAPM with anti-handling devices are a defensive weapon permissible according to international humanitarian law, as there is the need to warrant the operational capability of armed forces as well as their **protection**.⁵

³ The operational **lifespan** of MOTAPM shall be defined as only from the time it is aimed.

⁴ The assessment of the reliability rate of the SD or SN/SDA is left to the discretion of each State Party.

⁵ See **Annex B**.

III. RECOMMENDATIONS ON FUZE DESIGN AND SENSORS OF MOTAPM

16. To determine basic categories of fuzes and adopt Best Practices on suitable technical parameters for **fuze** mechanisms, which will increase the discriminatory capacity of MOTAPM and will prevent them from being actuated by the presence, proximity or contact of a **person**.⁶

17. All MOTAPM shall incorporate, to the extent **feasible**⁷, multi-sensor fuzes technology in order to reduce the possibility of inadvertent or accidental activation. If a single fuze or sensor fulfills the safety requirements of the Best Practices referred to in the previous paragraph, the incorporation of multi-sensor fuzes shall be discretionary.

18. The influence of environmental factors - particularly *(i)* of weather and climate as well as *(ii)* of storage, handling and other external conditions - shall be taken into account when selecting the types of fuzes and determining the sensitivity of **fuses**.

19. Considerations and proposals of technical measures shall take into account operational, procurement as well as life cycle factors; they shall address clearly identified humanitarian issues.

⁶ See Annex A.

⁷ As "Best Practice".

IV. RECOMMENDATIONS ON PROTECTION OF CIVILIANS, WARNING AND MINE RISK EDUCATION

20. All feasible precautions should be taken to protect civilian population, individual civilians and civilian **objects** from the hazard posed by **MOTAPM**.

21. To the extent **feasible**, appropriate provisions shall be adopted aimed at the establishment of an effective and efficient system of warnings to civilians and mine risk education on the threat of **MOTAPM**.

V. RECOMMENDATIONS ON TRANSFERS

22. The transfer of MOTAPM to States, which have not accepted the provisions and restrictions, contained in the present paper, after they become effective, should be prohibited.

23. The transfer of MOTAPM the use of which is restricted, shall be restrained except for the purpose of destruction or for development of and training in mine detection, mine clearance, or mine destruction techniques.

24. The transfer of MOTAPM equipped with fuzes graded sensitivity Category **One**, should be prohibited, except for the purpose of destruction or for development of and training in mine detection, mine clearance, or mine destruction techniques.

25. The transfer of MOTAPM ~~the~~ use of which is restricted shall be restrained except for the purpose of destruction or for development of and training in mine destruction, mine **clearance**, or mine destruction techniques.

26. **The** transfer of MOTAPM to any recipient other than a State or State agency authorized to receive such transfers should be prohibited. An "end-user certificate" is to be provided by the recipient State.

27. Pending the adoption of a legally binding instrument on the issues under consideration, the CCW States Parties undertake to introduce unilaterally a moratorium on the transfer of **non-detectable** MOTAPM, as well as of MOTAPM included in sensitivity Category One, and to exercise restraint in the transfer of MOTAPM, not fitted with SD or SN/SDA.

28. **In** the case when a State Party declares that it will avail itself with a transition **period**, transfers should nevertheless be prohibited as application of the respective provisions for that State Party.

VI. RECOMMENDATIONS ON TRANSPARENCY AND OTHER CONFIDENCE-BUILDING MEASURES

29. A system of transparency measures on the implementation of the adopted prohibitions, restrictions and regulations should be established. Such a system should include the following elements:

- a. Each State Party to submit an initial report on the implementation of the adopted provisions;
- b. Each State Party to update its report periodically;
- c. The report to **include, *inter alia*:**
 - (i) Practical information on MOTAPM;
 - (ii) Dissemination of information on the adopted provisions on MOTAPM to their armed forces and to the civilian population;
 - (iii) Mine clearance and rehabilitation programmes;
 - (iv) Steps taken to meet technical requirements of the adopted provisions and any other relevant information pertaining thereto;
 - (v) Legislative and other measures taken for the implementation of the adopted provisions;
 - (vi) Measures taken on technical cooperation and technical or other assistance provided;
 - (vii) Information on the transfers of MOTAPM; and
 - (viii) Other relevant matters.

VII. RECOMMENDATIONS ON ISSUES RELATING TO THE IRRESPONSIBLE USE OF MOTAPM

30. Any **recommendation** on MOTAPM should apply to situations resulting from armed conflicts referred to in CCW **Article 1**, paragraphs 1 to 6, as amended on 21 December 2001.

31. The States Parties should take all appropriate steps aimed at preventing the unauthorized access to or use of MOTAPM by any individual, group of persons or **entity**, not acting under the legal authority of a State, including *inter alia*:

- a. Establishment of adequate systems for **documentation**, marking and tracing of MOTAPM;
- b. Strengthened export control measures;
- c. Practical information on stockpiles and transport security;
- d. Penalization of the unauthorized manufacturing, **trafficking**, possession and use of MOTAPM by any individual, group of persons or entity, not acting under the legal authority of a State, or of the transfer of MOTAPM to such individuals, groups of persons or entities; other appropriate legislative or other measures, including the establishment of an appropriate prosecution or extradition **regime**;
- e. Enhanced cooperation among the States Parties on sharing information on the trafficking of and the use of MOTAPM by any individual, group of persons or entity, not acting under the legal authority of a State;
- f. Other appropriate steps.

Vm. RECOMMENDATIONS ON INTERNATIONAL COOPERATION AND ASSISTANCE

32. An enhanced system of cooperation and assistance at bilateral, regional and international level aimed at assisting the States Parties in the fulfillment of their obligations in respect to **MOTAPM** should be established. It should include the following:

- a. Technical and financial assistance, including exchange of experience, technology and information, to facilitate the implementation of necessary modifications to improve the reliability of and minimize the humanitarian risks of existing and future MOTAPM.
- b. Cooperation and assistance in the **destruction** of stockpiles of MOTAPM that do not meet and cannot be modified to meet the humanitarian and military norms on MOTAPM.
- c. Cooperation and technical, material and human assistance for the rapid and effective clearance, removal or destruction of MOTAPM.
- d. The timely provision of geographic and technical information on MOTAPM to relevant humanitarian missions and to the database on mine action maintained within the UN system.
- e. Cooperation and assistance on the provision of risk education for civilian populations.
- f. Cooperation and assistance for the care and rehabilitation and the social and economic **reintegration** of victims of MOTAPM.
- g. Cooperation and assistance in the legal implementation of the regulations and restrictions relating to MOTAPM.

33. To consider the establishment of a register, containing a list of all states and institutions, in position to provide equipment and methodology to assist the implementation of the regulations and restrictions relating to MOTAPM, as well as a list of the states in need of such assistance and cooperation.

IX. OTHER POSSIBLE RECOMMENDATIONS

The States Parties may also wish:

34. To elaborate higher standards for minefield documentation and marking.
35. To consider whether the provisions on "change in control of perimeter-marked areas" and "the prevention of interference with perimeter markings" (Article 5, paragraphs 2 (b), 3, 4 and 5 of AP II) should be incorporated or restated.
36. To consider reducing the life-span of MOTAPM.
37. To consider the establishment of a universal coloring system for MOTAPM, and especially remotely delivered MOTAPM, for a better warning and to avoid the confusion of MOTAPM being confounded with humanitarian supplies or other objects which may be attractive to the civilian population.
38. To consider whether to prohibit the transfer of MOTAPM to other States.
39. To consider the establishment of a Register on the transfers of MOTAPM the use of which is restricted, including of MOTAPM included in sensitivity category I.
40. To consider whether, after the adoption of the regulations contained in the present paper, the States Parties should be allowed to retain for training and education purposes a fixed limited amount of prohibited or restricted MOTAPM.
41. The amount of MOTAPM allowed to be transferred for training and education purposes should not exceed the amount specified in the last paragraph of the present paper.
42. To recommend the adoption of Best practice on export control.
43. To consider the establishment of a register, containing a list of all states and institutions, in position to provide equipment and methodology to assist the implementation of the regulations and restrictions relating to MOTAPM, as well as a list of the states in need of such assistance and cooperation.
44. To consider the establishment of a Trust Fund for assistance and cooperation in addressing humanitarian concerns on a long-term basis in fields such as risk education, victim assistance and rehabilitation programmes. The establishment of the Fund should not preclude cooperation and assistance with other international intergovernmental or non-governmental organizations.

Annex A

FUZE DESIGN AND SENSORS OF MOTAPM

1. Based on information and data provided by States Parties the following broadly available fuzes and sensors shall be considered as relevant: acoustic sensors; break wires; fiber-optic wires; infra-red-sensors; magnetic sensors; pressure sensors; roller arms; scratch wire sensors; seismic/vibration sensors; tilt rods; trip wires.⁸

2. The aforementioned broadly available fuzes and sensors shall be graded into the following categories:

Category One: *Fuzing systems that cannot be designed not to be excessively sensitive, i.e. break wires, tilt rods, and trip wires.⁽ⁱ⁾*

(i) Break wires, tilt rods, and trip wires do not appear to be a recommended method of **activation**, as it does not seem possible to design them in such a way that an individual cannot, within reason, initiate the mine.

Category Two: *Fuzing systems that can be designed not to be excessively sensitive, but are best used in conjunction with other sensors, i.e. acoustic **sensors**,⁽ⁱⁱ⁾ infrared-sensors,⁽ⁱⁱⁱ⁾ and seismic/vibration sensors.⁽ⁱⁱⁱ⁾*

(i) Acoustically activated fuzes use electronic sensors to react to acoustic pressure and recognize the acoustic signature. Use in conjunction with other sensors is preferable.

(ii) Infrared activated fuzes shall be designed so as not to be activated in the presence of a person. The sensor shall be able to match detected heat signatures to the intended target preferably in conjunction with other sensors.

(iii) **Seismic/Vibration** sensors cannot currently locate their targets precisely; their use in conjunction with other sensors appears therefore to be indispensable. The sensor shall be capable to match a seismic signature to the intended target.

Category Three: *Fuzing systems that can be designed not to be excessively sensitive and can be designed to operate satisfactorily on their own, i.e. fiber-optic wires,⁽ⁱ⁾ magnetic sensors,⁽ⁱⁱ⁾ pressure sensors, roller arms,^(iv) and scratch wire sensors.^(v)*

(i) The pressure required to break the fiber-optic signal shall be appropriate for the intended target.

(ii) To enhance military utility, magnetically activated mines shall be capable of **matching a magnetic signature to the intended target.**

⁸ The sequence of the fuzes and sensors is strictly alphabetical and does not entail an assessment on their availability, distribution or use.

(iii) Pressure sensors shall, where possible, be subject to a minimum pressure force appropriate for the intended target [, e.g. **1500–1800 Newton**]. Pressure shall preferably be exerted over a significant area (equal to that of a vehicle) rather than a single point.

(iv) The number of turns required to initiate the roller arm **fuze** shall be matched to the intended target

(v) The scratch wire sensor shall be designed for specific targets by optimizing the scratch time, frequency and amplitude required to initiate the sensor by the intended target.

Annex B

ANTI-HANDLING DEVICES FOR MOTAPM

1. The activation of an anti-handling device is conditional upon an attempt to tamper with the mine it is intended to protect. Tampering entails an intentional interference with, or unauthorized alteration of, the **operability** of the mine. An anti-handling device should thus not be activated by the mere presence, proximity or contact of a person.
2. As the reliability rate is the most important factor for ensuring the proper **functioning** of a MOTAPM and of the anti-handling device, with which it is equipped, it follows from the rule of **accessoriness** entailed in Article 3(6) of Amended Protocol II that the anti-handling device should have a higher or the same reliability rate than the one of the MOTAPM it is intended to **protect**, but under no circumstances a reliability rate, which is lower than the one of the protected MOTAPM.
3. MOTAPM that contain no internal mechanisms to limit their active lives persist as threats to civilian populations in the post-conflict environment. If equipped with anti-handling devices, threats may emerge from the persistence of the MOTAPM as well as from the possible persistence of anti-handling devices protecting the MOTAPM. It is therefore recommended that the use of anti-handling devices should only take place on MOTAPM equipped with self-destruction or **self-neutralization/self-deactivation** mechanisms.
4. The activation time for MOTAPM equipped with anti-handling devices should not exceed [] hours.
5. MOTAPM fitted with **AHD** may be used only if:
 - a. Equipped with SD or SN/SDA; or
 - b. When located in a perimeter marked area which is monitored by military personnel [and; or] protected by fencing or other means, to ensure the effective exclusion of civilians from the area.
6. The use of AHD should be included into the documentation of the respective mine-field.